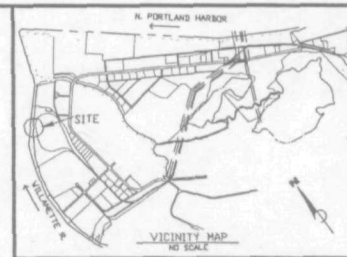
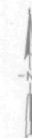


PORSF



USEPA SF

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1. HORIZONTAL DATUM: OREGON COORDINATE SYSTEM, NORTH ZONE (NAD-27).
2. CONTOURS: NAD SPOT ELEVATIONS ARE GIVEN IN FEET AND MINUTE DEPTHS BELOW COLUMBIA RIVER DATUM. THE POINT USED IS LOCATED AT KELLY POINT AT THE CONFLUENCE OF WILLAMETTE RIVER.
3. HORIZONTAL POSITIONS FOR NAVIGATION AND DATA COLLECTION WERE DETERMINED BY USING A TRIMBLE 4000SSE G.P.S. SYSTEM OPERATING IN A DIFFERENTIAL MODE.
4. BATHYMETRIC DATA WAS COLLECTED USING AN INHERSPACE-448 ECHOSOUNDER WITH AN 8" SINGLE BEAM TRANSDUCER.
5. SURVEY DATA WAS COLLECTED LONGITUUDINALLY WITH THE DOCK FACE USING A TWENTYFIVE FOOT LINE SPACING. THE SURVEY DATA COLLECTED LONGITUDINALLY WAS USED USING A "SHOAL BIAS" METHOD TO AN APPROXIMATE HORIZONTAL SPACING OF A FEET.
6. THERE MAY BE BOTTOM FEATURES THAT ARE NOT SHOWN ON THIS MAP BECAUSE OF THE LINE SPACING INTERVAL. THIS SURVEY DOES NOT INCLUDE BATHYMETRIC DATA BETWEEN THE ADJACENT SURVEY LINES.
7. THIS BATHYMETRIC SURVEY IS REPRESENTATIVE OF THE CONDITION OF THE RIVER BOTTOM AT THE TIME OF THE SURVEY BASED ON THE LINE SPACING INTERVAL, AND THINNING METHOD USED. THE CONDITION OF THE RIVER BOTTOM MAY CHANGE AT ANY TIME AFTER THE DATE OF THIS SURVEY.
8. HYDROGRAPHIC DATA COLLECTED: OCTOBER 2, 1996

[illegible]

MINISTER-GLAESER  
SURVEYING INC.  
2200 E. EVERGREEN BLVD.  
VANCOUVER, WA 98001  
(206) 404-1313

96D015

51965-020  
ISSUED BY THE

REGISTERED  
PROFESSIONAL  
LAND SURVEYOR

*Robert W. Glaser*

OREGON  
EXPIRES JUNE 30, 1997  
ROBERT W. GLASER  
1988

10/22/96

DESIGNED BY	G. BAIRD
DRAWN BY	R.W. GLAESER
CHECKED BY	OCTOBER 1996
DATE	1" = 50'
SCALE	

TERMINAL-5  
HYDROGRAPHIC SURVEY  
POST-DREDGE FOR BERTH-503

SUBMITTED BY Charles E. Wiley  
WANGER SURVEY

DRAWING NO.  
TS 96-505 1/1 (SU)